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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/400,764	09/21/1999	TIMOTHY J. MOULSLEY	PHB-34.288	3782

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER

TRAN, TUAN A

ART UNIT	PAPER NUMBER
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2682

17

DATE MAILED: 10/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/400,764

Applicant(s)

MOULSLEY, TIMOTHY J.

Examiner

Tuan A Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 September 1999.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-5 and 8-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2-5 and 8-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 2-5, 8-29 and 31-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hulbert (5,713,074) in view of Hamabe (5,396,649).

Regarding claim 5, Hulbert discloses a digital wireless communication system (See fig. 1 and col. 1 lines 5-12) comprising: at least one transmitter 20 having means for transmitting first units information at a first power level (See fig. 1 and col. 3 line 56-60); at least one receiver 22 for receiving the transmitted information units (See fig. 1 and col. 3 line 60); control means 36 for controlling the transmitter output power (See fig. 1 and col. 2 lines 28-29); and monitoring means 30 for monitoring if correction reception of the transmitted units occurred at the receiver 22 (See fig. 1 and col. 4 lines 4-7), wherein the transmitting means transmits second information units associated with the first information units for which first information units the monitoring means does not indicate correct reception has occurred, the second information units being transmitted at a second power level that is greater than the first power level, the second power level being selected by the control means (See fig. 1 and col. 3 line 56 to col. 4 line 18), and wherein the second information units allow the content of the first information units to be

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established (See col. 3 lines 47-55, col. 4 lines 57-63). However, Hulbert does not mention that the first power level is selected to increase a probability of failed first information unit transmission and of consequent second information unit transmission and to minimize average power consumption taking into account the first power level and the second power level, the first power level being the lowest level to correspond to a maximum allowable probability of failed first information unit transmission and of consequent second information unit transmission. Hamabe teaches to select transmission power in sequential steps from a minimum transmission power level up to a maximum transmission power level (See col. 3 lines 50-57), wherein the minimum transmission power level inherently correspond to a maximum probability of failed transmission and as the Applicant admitted (See Specification, page 5 lines 23-25), and wherein average power consumption taking into account the first power level and the second power level is inherently being minimized. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the Hamabe's teachings in arranging the transmitter, as disclosed by Hulbert, by transmitting the first information unit at the lowest power level to increase probability of failed first information unit transmission and of consequent second information unit transmission to a maximum allowable probability, and further to minimize the average power consumption, for the advantage of decreasing level of channel interference to enhance the quality of service and conserving the power.

Claims 12-13, 15, 33 and 36 are rejected for the same reasons as set forth in claim 5, as apparatus.

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Claims 14, 18-19, 20 and 32 are rejected for the same reasons as set forth in claim 5.

Regarding claims 8-9, Hulbert & Hamabe disclose as cited in claim 12. Hulbert further discloses the transmitting station 20 has a capable of transmitting second information units to compensate for the errors occurred during the transmission of the first information units (See col. 3 lines 47-65, col. 4 lines 57-63) that means the content of the second information units is inherently the same as the content of the first information units.

Claims 2 and 22 are rejected for the same reasons as set forth in claims 8-9, as method.

Claims 34 and 37 are rejected for the same reasons as set forth in claims 8-9.

Regarding claim 3, Hulbert & Hamabe disclose as cited in claim 5. Hulbert further discloses the wireless communication system utilized CDMA, inherently information units are data packets (See col. 1 lines 5-12, 60-61).

Claim 28 is rejected for the same reasons as set forth in claim 3.

Regarding claim 4, Hulbert further discloses monitoring is performed by the transmitting station based on information provided by the receiving station (See fig. 1 and col. 3 line 56 to col. 4 line 18).

Claim 29 is rejected for the same reasons as set forth in claim 4.

Regarding claims 10-11, Hulbert & Hamabe disclose as cited in claim 12. Hulbert further discloses the communication system is a cellular mobile radiotelephone

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system wherein the transmitter station is employed as a component of the cellular radiotelephone system (See fig. 1 and col. 1 lines 11-25).

Claims 35 and 38 are rejected for the same reasons as set forth in claims 10-11.

Regarding claim 16-17, Hulbert & Hamabe discloses as cited in claim 5.

However, they do not mention that the second information units include forward error correction information associated with the first information units, wherein the forward error correction information is enhanced. Hulbert further discloses the transmitting station 20 has a capable of transmitting second information units to compensate for the errors occurred during the transmission of the first information units (See col. 3 lines 47-77, col. 4 lines 57-63). Forward error correction technique is well known in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply this technique by including enhanced forward error correction information into the information that is retransmitted to compensate for the errors occurred in the previous transmission for the advantage of allowing the receiving end to receive correct data.

Claims 24-27 are rejected for the same reasons as set forth in claims 16-17.

Regarding claim 21, Hulbert & Hamabe discloses as cited in claim 20, Hulbert further discloses the first information is of the nature that must received in real-time by a user (See col. 1 lines 11-20). However, they do not mention that the second information is transmitted sufficiently quickly so that a delay perceived by the user in successful reception of the first traffic information is below a desired threshold. Keeping the delay between two transmissions well within a predetermined threshold in a particular

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communication is a common practice in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to establish this step in order to speed-up data exchanging process as well as saving power.

Regarding claim 23, Hulbert & Hamabe disclose as cited in claim 20. Hulbert further discloses the transmitting station 20 has a capable of transmitting second information units to compensate for the errors occurred during the transmission of the first information units (See col. 3 lines 47-65, col. 4 lines 57-63) that means the content of the second information units is inherently the same as the content of the first information units. However, they do not mention that the second information comprises a portion of the content of the first transmission units. There are two obvious ways to compensate for the errors occurred during the transmission of the first information unit: one is retransmitting the whole content of the first information unit to replace for the content that has errors, and the other is retransmitting a portion of content to compensate for just the occurred error portion of content; therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to arrange the transmitting station to transmit the second information comprising a portion of the content of the first information units in order to save spectrum as well as power.

Regarding claim 30, Hulbert & Hamabe disclose as cited in claim 20. Hulbert further discloses transmitting second information unit comprises a plurality of transmissions of further information (See col. 3 line 64 to col. 4 line 3), wherein the plurality of transmissions is inherently equal or less than a threshold number, which the threshold number inherently depends upon a battery capacity of the transmitting station.

Regarding claim 31, Hulbert & Hamabe disclose as cited in claim 20. However they do not mention that transmitting of first information comprises at least one retransmission at the first power level prior to the transmission of the second information. Retransmission information upon receiving NAK (negative acknowledgement) at the same power level is well known in the art, therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to establish this step in order to avoid unnecessary power increasing to save power as well as to reduce interference of the network in general.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Smith et al. (5,266,922) discloses mobile communication apparatus.

Response to Arguments

Applicant's arguments filed 07/18/2003 have been fully considered but they are not persuasive.

a. The Applicant argued that Hulbert only shows 2 transmissions and fails to teach or suggest transmission of the second information (See Remark, page 14 second and fourth paragraphs, page 15 second paragraph). The Examiner respectfully disagrees with the Applicant's arguments because Hulbert does show the transmission of the second information on col. 4 lines 59-63 (...wherein the first station is arranged to detect a burst of errors in data reflected back from said second station, and wherein

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detection of the burst of errors indicates that a carrier reference has become inverted and said first station further comprises a means inverting the data if **it is transmitting to compensate for the burst of errors.**). For that reasons, the Examiner remains the same rejections.

b. The Applicant argued that the Examiner says that the retransmission is inherent, for instance claim 21 (See Remark, page 15 third paragraph, page 16 third paragraph). The examiner respectfully disagrees with the Applicant's argument because in the Office Action mailed on 04/22/2003, the Examiner does not assert that the retransmission is inherent.

c. The Examiner would like to present U.S. Patent 5,266,922 as evidence to support for the Examiner's statement that "forward error correction", and further the technique of embedding the "forward error correction" in the transmitted packet are known in the art (See fig. 3B and col. 3 lines 4-32) upon the Applicant's request.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Tuan Tran** whose telephone number is **(703) 605-4255**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Vivian Chin**, can be reached at **(703) 308-6739**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

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Tuan Tran

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VIVIAN CHIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600

10/6/03